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EXAMINER	
PHAN, TRI H	

ART UNIT	PAPER NUMBER
2661	

DATE MAILED: 05/19/2004 18

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/276,248	FOURIE ET AL.	
	Examiner	Art Unit	
	Tri H. Phan	2661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 February 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *23-59 and 63-112* is/are pending in the application.

4a) Of the above claim(s) *1-22 and 60-62* is/are withdrawn from consideration.

5)☐ Claim(s) *40-52 and 68-86* is/are allowed.

6)☐ Claim(s) *23, 25-30,35-39,53, 55-59, 66, 87-93, 96, 98-103 and 109-112* is/are rejected.

7)☐ Claim(s) *24,31-34,54,63-65,67,88,94,95,97 and 104-108* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *17*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment/Arguments

1. This Office Action is in response to the Response/Amendment filed on February 25th, 2004. Claims 23-59 and 63-112 are now pending in the application.

Claim Objections

2. Claims 96 and 109 are objected to because of the following informalities: The claims simply recite "An article of manufacture comprising a computer readable medium having instructions which when executed perform a method, ... reducing ..."; which is not executed by a computer system, such as by a processor. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 36 and 109-110 are rejected under 35 U.S.C. 102(b) as being anticipated by **Tasaki et al.** (U.S.5,511,113).

- In regard to claims 36 and 109-110, **Tasaki** discloses in Figs. 1-15 and in the respective portions of the specification about the service switching point equipped with the switching

function and connected via the communication network to the service control point equipped with the additional-service control function for switching the call between terminals, e.g. "*point-to-point call*", (For example see Figs. 1-3; Abstract) and having the service software program ("*article of manufacture*") stored in the memory ("*computer readable medium*") and the database for storing data needed to execute the additional service 'IN service' by the processor (For example see Fig. 3; col. 5, line 52 through col. 6, line 8); wherein, when there is the notification of release 'RELEASE message' ("*in response to the call transitioning from the active phase to the release phase*"), the service switching point combines the IN-related charging information related to the additional service created/sent by the service control point with the non IN-related information ("*call record*") to create detailed charging information as an extended part disclosed in Fig. 5, (For example see col. 12, line 65 through col. 13, line 20; it is inherent that the size of the composition of detailed charging information is increasing compared with the non IN-related information created by the service switching point, e.g. "*expanding the size of the call record*".

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 23, 25-27, 53, 55, 57, 87, 89, 91-92, 96, and 98-100 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Janning** (U.S.6,052,448) in view of **Cool** (U.S.5,218,632).

- In regard to claims 23, 53, 87 and 96, **Janning** discloses in Figs. 1-3 and in the respective portions of the specification about the system (telecommunication network), apparatus (IXC switch in Figs. 1A-B), and method for flexible formatting call detail records ("*call record*") to reduce storage and processing requirements within the switch (See Abstract and details in Figs. 2-3; col. 4, lines 20-30) for a call ("*point-to-point call*"); from the 'call initiated' between the original station and the terminating station through the IXC switch to the 'call ongoing' ("*call transitioning from the establishment phase to the active phase*"; For example see col. 4, lines 38-52; where it is obvious that the 'call initiated' is the "*establishment phase*" and the 'call ongoing' is the "*active phase*"), various types of information regarding the call in the raw information ("*call record*") are 'collected' and stored by the call condense agent as the recording unit 'RU', which holds the 'selected' raw information (For example see col. 3, line 45 through col. 4, line 4; col. 4, lines 38-52 it is obvious that collecting the 'selected' raw information 'in regarding the call' from the 'call initiated' to the 'call ongoing' by the call condense agent in order to reduce the size of the record for storing disclosed in col. 1, lines 43-55, is also meant as "*in response to the call*" transitioning from the 'call initiated' to the 'call ongoing', and where it is obvious that the 'selected' raw information has smaller size in compare with the size of the raw call information, e.g. 'the size of the call information is reduced'), where the RUs are formatted by using the CDR template (For example see col. 5, line 1 through col. 6, line 32; col.

21, lines 1-35) and are used to determine the optimal or 'best fit' template by selecting 'don't care' or 'must have' field types, unused or empty fields in the call's information (For example see Col. 17, Lines 12-16, 48-64; it is also obvious that the stored size of the call's information is reduced with the selected template as disclosed in col. 4, lines 23-30) and transferred to the formatter, when the call is disconnected, to determine and format into data structure such as 'CDR' stored in 'DIRP' (For example see col. 15, lines 48-64). **Janning** also discloses that the IXC switch ("*switch device*"), the call condense and formatter agent ("*switched virtual circuit controller*") generate and maintain the formatted CDRs, which store in the storage facility ("*memory space where call records are stored*"; For example see Col. 4, Lines 35-37). **Janning** fails to specifically disclose about the "*instructions stored in the computer of the article of manufacture*" to perform the method of reducing the size of the call record (Claim 96); however, **Janning** does disclose about the various hardware and software components; and it is obvious that the program software includes the codes and program code, i.e. "*instruction*", for performing operations in the IXC switch such as reducing the size of the call record and storing for the billing process disclosed in the reference. **Janning** does discloses about the size of the raw call information ("*call record*") is reduced through the call condense agent collects various types of 'selected' information regarding the call and stored as 'RU', but fails to specifically disclose about the method of "*reducing the size of the call record*". However, such implementation is known in the art.

For example, **Cool** discloses in Figs. 1, 3, 9A-D, 10; and in the respective portions of the specification about the flexible call detail recording system through the use of the stored program control 'SPC' switching system for constructing/modifying the particular call data structure to be

used for each call record based upon conditions determined by the data associated with each call (For example see col. 2, lines 58-66; col. 8, lines 17-26) by 'filtering out' unwanted conditions (For example see col. 7, lines 5-12; it is obvious that 'filtering out' unwanted conditions for the particular call data structure to be used for each call record based upon conditions determined by the data associated with each call is "*reducing the size of the call record*") with filtering tables and modules (For example see Figs. 9A-D; col. 10, lines 12-68).

Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention was made to combine the invention as taught by **Cool**, by implementing the method of 'filtering out' unwanted conditions for particular call data structure based upon conditions determined by the data associated with the call in the **Janning**'s call condense agent, for collecting and selecting information in regarding to the call as disclosed in col. 2, lines 28-31.

- Regarding claims 25-27 and 98-100, **Janning** further discloses about *retry counter information* (REORGCTR) *and pointer information to setup messages* (DISCTYPE, FCDR_CDR_TMPLT) (For example see details in Table 1; col. 1, lines 23-32; col. 3, lines 49-54; wherein the collected information stored in the RU until the call is disconnected such as counter for the call, call forwarding, ..., incorporates with ANSCDR field for generating CDR or not, i.e. "*discarding*", which use for constructing billing purpose) for the phone call in the telecommunication networks ("*point-to-point call*"; For example see col. 3, lines 13-18).

- In regard to claims 91-92, **Janning** further discloses about the CRID for call reference ID ("*call ID*") and CALLTYPE for type of services ("*quality of service*") (For example see Table 1).

- Regarding claims 55 and 89, **Janning** further discloses about the formatter ("*message processing system*") for selecting, based upon the examination of the raw call information (For example see Figs. 1A-B; col. 2, lines 2-4).

- In regard to claim 57, the combination of **Janning** and **Cool**'s system fails to specifically disclose about the "*standby controller*". However, the use of "*standby controller*" as shadow processor for a system having redundant controllers is well known in the art for stabilizing the system when the main controller fails. Therefore, it would have been obvious to the person of ordinary skill in the art at the time of the invention was made to use a shadow processor in the system taught by the combination of **Janning** and **Cool**'s system for stabilizing the system in redundant purpose.

7. Claims 28-30, 35, 56, 58-59, 66, 90, 93 and 101-103 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Janning** (U.S.6,052,448) in view of **Cool** (U.S.5,218,632) as applied to claims 23, 25-27, 37, 53, 55, 57, 87, 89, 91-92, 96, and 98-100 in part 6 of this Office action above, and further in view of **Gupta** (U.S.4,788,719).

- In regard to claims 28 and 101, the combination of **Janning** and **Cool** does disclose the switch device and method for initiating call by the originating station to the terminal station ("*point-to-point call*") in the public switched telephone network (For example see **Janning**: Figs. 1A-B) and by using various hardware and software components in the IXC switch to reduce the size of the call record for storing in the storage facility or to increase the size of the call record when adding new services (For example see **Janning**: col. 1, lines 55-61; service in CALLTYPE of Table 1), but fails to disclose about the "*point-to-multipoint call*". However, such implementation is known in the art.

For example, **Gupta** discloses a system and method for two-party call, i.e. "*point-to-point call*", as disclosed in col. 4, lines 30-43; or conferencing call, i.e. "*point-to-multipoint call*", as disclosed in col. 4, lines 44-50.

Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention was made to implement the conferencing connection method as taught by **Gupta** in the combination of **Janning** and **Cool**'s system, by implementing the **Gupta**'s call recording program in the program templates of the call records as new services in the combination of **Janning** and **Cool**'s system for providing the ability to establish conference calls, i.e. "*point-to-multipoint call*", between multiple users, as new services offered to subscribers in the telecommunication network as disclosed in **Janning**: col. 1, lines 55-61.

- Regarding claims 29, 93 and 102, the combination of **Janning** and **Cool** does disclose the method for reducing the size of the call record for storing in the storage facility or to increasing the size of the call record when adding new services ("*expanding call record*"; For

example see **Janning**: col. 1, lines 55-61; service in CALLTYPE of Table 1) and wherein **Gupta** discloses the method for establishing conference calls ("*point-to-multipoint call*") with dropping or adding party ("*drop/add party to the call*"; For example see **Gupta**: Col. 4, Lines 44-63). It is obvious when adding new party to the call, the call record will increase as new service, due to the adding information of the new adding party and when dropping party to the call, the call record will decrease, due to the reduce information of the dropping party.

Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention was made to implement the conferencing connection method as taught by **Gupta** in the combination of **Janning** and **Cool**'s system, by implementing the **Gupta**'s call recording program in the program templates of the call records as new services in the combination of **Janning** and **Cool**'s system for providing the ability to establish conference calls between multiple users, as new services offered to subscribers in the telecommunication network as disclosed in **Janning**: col. 1, lines 55-61.

- In regard to claims 30 and 103, the combination of **Janning** and **Cool** further discloses the raw information, which temporarily stores in the RU as a capture map ("*pointer*"; For example see col. 3, line 63 through col. 4, line 4) for creating the CDRs or DIRP files, which is the 'subset data structure' defined by the selected template ("*mini-call record*"; For example see **Janning**: col. 2, lines 28-60).

- Regarding claims 35, 56, 58, 66 and 90, the combination of **Janning** and **Cool** fails to specifically disclose wherein the "call is transported through the ATM network". However, ATM

network is well known in the art for transporting data signal in the communication and **Janning** does disclose that the PSTN or other telecommunications network may also be used (For example see col. 3, lines 29-36). Therefore, it would have been obvious to the person of ordinary skill in the art at the time of the invention was made to use the ATM network for transporting data signal in the **Janning**'s telecommunications network.

- In regard to claim 59, the combination of **Janning** and **Cool** does disclose the switch device and method for initiating call by the originating station to the terminal station ("*point-to-point call*") in the public switched telephone network (For example see **Janning**: Figs. 1A-B) and by using various hardware and software components in the IXC switch to reduce the size of the call record ("*reducing call record*") from the 'call initiated' to the 'call ongoing', i.e. "*in response to the call transitioning from the establishment phase to the active phase*" as applied in part 6 of this Office action above, or to increase the size of the call record ("*expanding call record*") when adding new services (For example see **Janning**: col. 1, lines 55-61; services in CALLTYPE of Table 1), but fails to disclose about the expanding call record during active phase to "*add party*". However, such implementation is known in the art.

For example, **Gupta** discloses a system and method for two-party call, i.e. "*point-to-point call*", as disclosed in col. 4, lines 30-43; or conferencing call, i.e. "*point-to-multipoint call*", as disclosed in col. 4, lines 44-50; with dropping or adding party ("*drop/add party to the call*"; For example see **Gupta**: Col. 4, Lines 44-63). It is obvious when adding new party to the call, e.g. "*during active phase*", the call record will increase as new service, due to the adding information

of the new adding party and decrease when dropping party to the call, due to the reduce information of the dropping party.

Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention was made to implement the conferencing connection method as taught by **Gupta** in the combination of **Janning** and **Cool**'s system, by implementing the **Gupta**'s call recording program in the program templates of the call records as new services in the combination of **Janning** and **Cool**'s system for providing the ability to establish conference calls, i.e. "*add/drop parties in the conferencing call*", between multiple users, as new services offered to subscribers in the telecommunication network as disclosed in **Janning**: col. 1, lines 55-61.

8. Claims 37-39 and 111-112 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Tasaki et al.** (U.S.6,052,448) in view of **Gupta** (U.S.4,788,719).

- In regard to claims 37-39 and 111-112, **Tasaki** discloses all the subject matter of the claimed invention as discussed in part 4 of this Office action above, about the service switching point equipped with the switching function and connected via the communication network to the service control point equipped with the additional-service control function for switching the call between terminals, e.g. "*point-to-point call*", and having the service software program ("*article of manufacture*") stored in the memory ("*computer readable medium*") and the database for storing data needed to execute the additional service 'IN service' by the processor; wherein the service switching point combines the IN-related charging information related to the additional service with the non IN-related information ("*call record*") to create detailed charging

information as an extended part. **Tasaki** does disclose about the charged party identifier among calling party, called party and third party (For example see col. 2, lines 40-42), but fails to specifically disclose about the "*point-to-multi-point*" call. However, such implementation is known in the art.

For example, **Gupta** discloses a system and method for two-party call, i.e. "*point-to-point call*", as disclosed in col. 4, lines 30-43; or conferencing call, i.e. "*point-to-multipoint call*", as disclosed in col. 4, lines 44-50.

The combination of **Tasaki** and **Gupta** fails to specifically disclose wherein the "call is transported through the ATM network". However, ATM network is well known in the art for transporting data signal in the communication and **Tasaki** does disclose that the communications network with signaling network (For example see col. 5, lines 39-51). Therefore, it would have been obvious to the person of ordinary skill in the art at the time of the invention was made to use the ATM network for transporting data signal in the **Tasaki**'s communications network.

Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention was made to implement the conferencing connection method as taught by **Gupta** in the **Tasaki**'s system, by implementing the **Gupta**'s call recording program in the service software program in the **Tasaki**'s system for providing the ability to establish conference calls, i.e. "*point-to-multipoint call*", between multiple users.

Response to Arguments

9. Applicant's arguments with respect to claims 2, 4 and 7-22 have been considered but are moot in view of the new ground(s) of rejection.

Allowable Subject Matter

10. Claims 24, 31-34, 54, 63-65, 67, 88, and 94-95 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. Claims 97 and 104-108 would be allowable if rewritten or amended to overcome the objection, set forth in the part 2 of this Office action and to include all of the limitations of the base claim and any intervening claims.

12. Claims 40-51, 68-73, and 74-86, are allowed. The following is an examiner's statement of reasons for allowance:

Claims 40-52, 68-73, and 74-86 are considered allowable since when reading the claims in light of the specification, none of the references of record-alone or in combination disclose or suggest the combination of limitations specified in the independent claims including.

Substantially regarding claims 40 and 74, the prior art of record fails to disclose the method and system for reducing the size of the call record maintained for the call, where reducing in response to the call transitioning from the establishment phase to the active phase and, especially means for expanding the size of the call record in response to the call transitioning from the active phase to the release phase.

Substantially regarding claim 68, the prior art of record also fails to show the apparatus as the same manner set forth in claim 74, with the method expanding call record during active phase, especially to include information used to drop the party from the call.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance".

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Gallagher et al. (U.S.5,907,603), **Bufferd et al.** (U.S.5,706,330) and **Brandt et al.** (U.S.6,714,979) are all cited to show devices and methods for improving the call record database in communication architectures, which are considered pertinent to the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tri H. Phan, whose telephone number is (703) 305-7444. The examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas W. Olms can be reached on (703) 305-4703.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9314

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office, whose telephone number is (703) 305-3900.

Tri H. Phan
May 10, 2004